

ANNEX NO. 1 TO
SPACE ACT AGREEMENT SAA0-SOMD-8446
BETWEEN
KENTUCKY SPACE, LLC AND NASA FOR
INTERNATIONAL SPACE STATION HIGH EFFICIENCY PARTICLE FILTER
ANALYSIS

In accordance with the terms and conditions set forth in Space Act Agreement No. SAA0-SOMD-8446, dated March 25, 2011, the Parties hereby agree as follows:

ARTICLE 1. PURPOSE OF ANNEX

NASA plans to operate a share of the U.S. accommodations of the International Space Station (ISS) as a national laboratory in accordance with the NASA Authorization Act of 2005. To fulfill this mandate, NASA released an announcement entitled the "OPPORTUNITY FOR THE USE OF THE INTERNATIONAL SPACE STATION BY DOMESTIC ENTITIES OTHER THAN U.S. FEDERAL GOVERNMENT AGENCIES". Kentucky Space responded to that announcement with a proposal to further utilize the ISS by serving as an implementation partner for various commercial and university researchers. Kentucky Space is a non-profit organization that was developed to promote space research and STEM education and jobs in the state of Kentucky. Performing analysis of the ISS High Efficiency Particulate (HEPA) Filters that had been used on the ISS. Kentucky Space proposed this research with their partner J. Craig Venter Institute (JCVI) who is an expert in the field of whole genome research and is interested in research into how whole genome populations change over time. ISS is an exceptional model for their research due to its extreme isolation from the rest of planet Earth. This type of work is not currently within NASA's capabilities and this research would be of benefit to NASA as well as meet Kentucky Space and JCVI research objectives.

ARTICLE 2. RESPONSIBILITIES

Partner will use reasonable efforts to:

1. Coordinate logistics and communication between NASA, Kentucky Space and research customers of Partner. The research customer under this Annex is the J. Craig Venter Institute (JCVI).
2. Provide research partner requirements to maintain sample integrity.
3. Develop any systems necessary to meet the requirements for sample integrity defined above.
4. Provide NASA with analysis and results of the HEPA filter examination.

B. NASA/will use reasonable efforts to:

1. Provide downmass from NASA assets for one or more used HEPA filter(s) from ISS to Kentucky Space which are uncontaminated by return to Earth. NASA will direct ship the containers to Partner's customers as directed by Partner.
2. Provide information on the composition and efficiency rating of the HEPA filter.
3. Provide technical support, as requested, to answer questions for Kentucky Space or customer, including J. Craig Venter Institute, on items related to the ISS systems or the HEPA filter.

ARTICLE 3. SCHEDULE AND MILESTONES

The planned major milestones for the activities defined in the "Responsibilities" clause are as follows:

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|---|-----------------------------------|
| NASA provide HEPA filter to Kentucky Space/Customer | NLT CRS SpaceX 1 Return Flight |
| Kentucky Space/JCVI/Customer analyzes HEPA filter | HEPA filter return + 1 Year |
| Kentucky Space provides report to NASA on analysis | Completed analysis + 6 months |

Analysis reports shall be subject to Partner's agreements with customers (including JCVI) and the availability of the results from customers. NASA understands that Partner will not be conducting the analysis and will not own the research results, and that the availability of the results is subject to the customer fulfilling its obligations under the customer agreement with Partner. Partner shall be responsible for taking reasonable steps to ensure customer complies with its agreement, however, Partner shall have no obligation to take legal action against customer to obtain the analysis data. If so requested by NASA, Partner will assign its rights under the customer agreement to NASA.

ARTICLE 4. TRANSFER OF BIOLOGICAL MATERIALS

Partner agrees that use of biological material provided to Partner by NASA under this Annex shall be subject to the terms of the Uniform Biological Material Transfer Agreement ("UMBTA") published in the Federal Register on March 8, 1995. The terms of the UMBTA can be found here: http://www.ott.nih.gov/pdfs/UBMTA_Master.pdf Partner further agrees authorization provided hereunder for the use of biological material is limited to non-human biological material found in the ISS HEPA filter.

Partner agrees that JCVI as recipient of biological material provided to Partner by NASA and any authorized sub-recipients will agree to the terms of the UMBTA prior to use of any biological materials provided hereunder. Partner will provide NASA with an

UBMTA Implementing Letter in the form of Attachment 1 to this Annex. The UMBTA Implementing Letter can also be found here:

http://www.ott.nih.gov/forms_model_agreements/forms_model_agreements.aspx

ARTICLE 5. TERM OF ANNEX

This Annex becomes effective upon the date of the last signature below and shall remain in effect until the completion of all obligations of both Parties hereto, or 3 years from the date of the last signature, whichever comes first, unless such term exceeds the duration of the Umbrella Agreement. The term of this Annex shall not exceed the term of the Umbrella Agreement. The Annex is automatically expired upon the expiration of the Umbrella Agreement.

ARTICLE 6. TECHNICAL POINTS OF CONTACTS

The following personnel are designated as the principal points of contact between the Parties in the performance of this Annex.

Technical Points of Contact

NASA Lyndon B. Johnson Space Center

Marybeth Edeen
Manager - ISS National Lab Office
Mail Stop: OZ12
2101 NASA Parkway
Houston, Texas 77058
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Fax: (281) 244-8292
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Kentucky Space, LLC

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jlumpp@kentuckyspace.com

ARTICLE 7. SIGNATORY AUTHORITY

The signatories to this Agreement covenant and warrant that they have authority to execute this Agreement. By signing below, the undersigned agrees to the above terms and conditions.

NATIONAL AERONAUTICS AND
SPACE ADMINISTRATION

BY: William H Gerstenmaier

William H. Gerstenmaier
Associate Administrator
for Space Operations
Mail Suite: 7K39
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Washington, DC 20546

DATE: 23 March 2011

KENTUCKY SPACE, LLC

BY: [Signature]

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DATE: 3/25/11

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